Appln. No.: 09/831,490

Amendment Dated November 4, 2003 Reply to Office Action of July 16, 2003

Amendments t the Specificati n:

Please replace the paragraph, beginning at page 2, line 20, with the following rewritten paragraph:

However, with the above-mentioned conventional structure, base 8 and circuit board 12 are connected to supporting base[[_]]15 via stud bolt 16 as shown in Fig. 10 and thus external vibrations are applied to the sensor via this stud bolt 16. Such external vibrations are applied to tuning fork 1 and may generate electric charges in detecting piezoelectric elements 6 on tuning fork 1 even when no angular velocity is applied to the angular velocity sensor. As a result, the angular velocity sensor has a problem of deterioration of its output characteristics.

Please replace the paragraph, beginning at page 8, line 6, with the following rewritten paragraph:

As shown in Figs. 1 through 7, crystal tuning fork 21 is composed of first oscillator 22 of a square pole shape, second oscillator 23 of a square pole shape provided in parallel with the first oscillator 22, and joint 24 integrally connecting one end of first oscillator 22 to one end of second oscillator 23. Driving electrode 25 made of gold is provided on each of the four side faces of first oscillator 22. Monitoring electrode 26 made of gold is provided on the upper side face of second oscillator 23. In addition, provided on the inner side face of second oscillator 23 (the face opposite first oscillator 22) is ground electrode (not shown). Moreover, a pair of detecting electrodes 28 made of gold are provided on the outer side face. Metallic supporting base 29 shaped to a rectangular parallelepiped supports the base of joint 24 of tuning fork 21. Metallic first base 30 fixes the bottom of supporting base 29 and also has six terminal-insertion holes 31, inner surface of each of which has insulator 32 made of glass. Six terminals 33 pass through terminal-insertion holes 31 of first base 30 via insulators 32. Terminals 33 through first base 30 are electrically connected to driving electrodes 25, detecting electrodes 28, ground electrode 27, and monitoring electrode 26, respectively, via leads (not shown). Metallic first cover 34 is provided to cover the top face of first base 30. First cover 34 and first base 30 house tuning fork 21 including first oscillator 22, second oscillator 23 and joint 24 therein. In this case, first Appln. No.: 09/831,490

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cover 34 and first base[[_]]30 are in close contact with each other so as to create a vacuum in the interior space formed between first base 30 and first cover 34. Thus, first base 30 and first cover 34 are secured to each other so as to create a vacuum in the interior space therebetween and this structure eliminates air resistance of the interior space between first base 30 and first cover 34. As a result, first oscillator 22 and second oscillator 23 oscillate easily and this is effective in improving the output sensitivity of the angular velocity sensor.